

course their existence in other Australian species should be confirmed. For the present, I think, it is well to separate the Australian form generically from the South American *Diplodon*, or, in other words, we should give to the subgenus *Hyridella* Swainson, 1840, generic rank. This is supported by the fact that *Hyridella* also differs in certain shell characters from the typical *Diplodon*, as has been recognized already by Simpson (l. c. p. 888).

One very important conclusion, however, is now finally established: Simpson's opinion that the Najades of the type of *Diplodon* (*Hyridella*) *australis* are closely related to certain South American forms (typical *Diplodon*), is fully justified, and there remains not the slightest doubt about this. The structure of the soft parts of both groups is so similar and so greatly different from the true *Unionidae* of the rest of the world, that *Hyridella*, no matter whether we regard it as a genus or a subgenus, must be placed with the family *Mutelidae* (?) and the subfamily *Hyriinae* (see NAUTILUS 24, March, 1911, pp. 129, 130). *This affinity is of the utmost zoögeographical importance.*

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MUSCULIUM DECLIVE, N. SP.

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BY V. STERKI.

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Mussel rather small, subequipartite, slightly to moderately inflated; beaks not or little anterior, somewhat prominent over the valve margin; the latter, anteriorly and posteriorly, straight or slightly curved, forming the two shanks of a rounded angle between the beaks, of about  $130^{\circ}$ , the posterior incline placed higher up than the anterior; balance of the outlines rounded without any angles in full-grown specimens; in half-grown and adolescent there is a short truncation at the posterior margin, at right angles to the longitudinal axis, and a similar one at the anterior, somewhat oblique; in young—post-nepionic—specimens, the posterior part of the mussel is shorter and higher than the anterior; surface glossy to waxy, with very fine (microscopic), sharp, crowded, concentric striae, and usually one or two lines of growth, and faint, irregular radial markings; shell thin, transparent to translucent; color light amber, to somewhat grayish or brownish in old specimens; hinge rather long;

left posterior cardinal tooth rather long, curved, the anterior small, sharply pointed, strongly curved upward, corresponding with an excavation below the right cardinal; laminæ ["laterals"] comparatively stout, the anterior of the left valve markedly projecting inward; ligament rather long; long. 7, alt. 6, diam. 4 mill.; soft parts not examined; Justice Latchford writes that the mussel "is of a bright chrome yellow when fresh, and seems to be unlike any other."

Distribution: Blue Lake, Muskegon Co., Michigan, collected and sent by Dr. R. J. Kirkland in 1899—the type lot, No. 1697 of my collection of *Sphæriidæ*; Pine Lake, Marquette Co., Mich., collected by Mr. Bryant Walker in 1902; Gorman Lake, Renfrew Co., Ont., collected by H. Justice F. R. Latchford in 1911. From the two last named places the specimens are considerably smaller, slighter, and little inflated, the nepionic shell is smaller, and in some specimens barely or not marked off (æstivale form).

This is a clearly distinct and well-marked species, apparently ranging nearest *M. rosaceum* Pme. It should be looked for at other places, and especially fossil, in marl deposits, etc.

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#### COLLECTING FROM HADDOCK ON THE GEORGE'S BANKS.

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BY W. F. CLAPP.

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Many malacological students believe that shells taken from fish stomachs have no practical locality. It has been argued that it would be an easy matter for a haddock to change its position 150 miles in 24 hours. It is possible that a fish may retain its food that length of time. Therefore a shell, found in a haddock caught near Cape Cod, may have been in Nova Scotia waters the day before. This of course would apply only to those shells which had passed through a considerable portion of the intestines, for one is sure of the habitat of a shell in proportion to the distance it has traversed the digestive tract. I believe that Gould and other authors who have described shells found in fish, intend the word stomach to include the entire alimentary canal. Less than 5 per cent. of the shells I have found in fish came from the stomach proper.